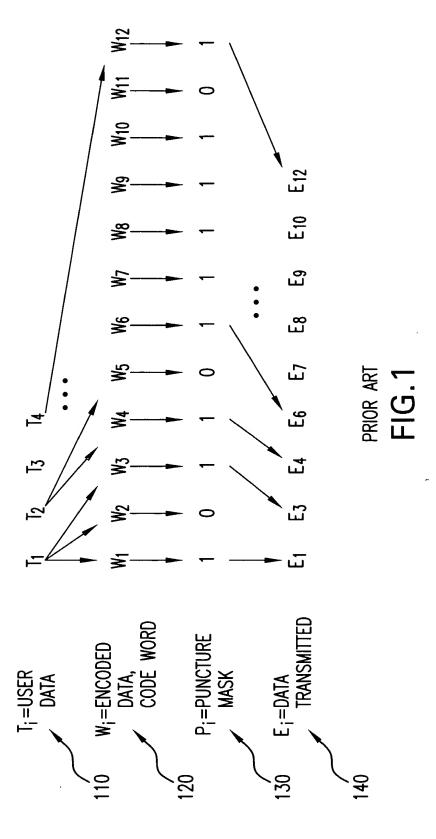
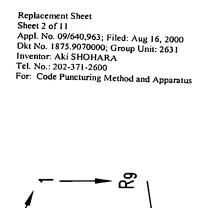
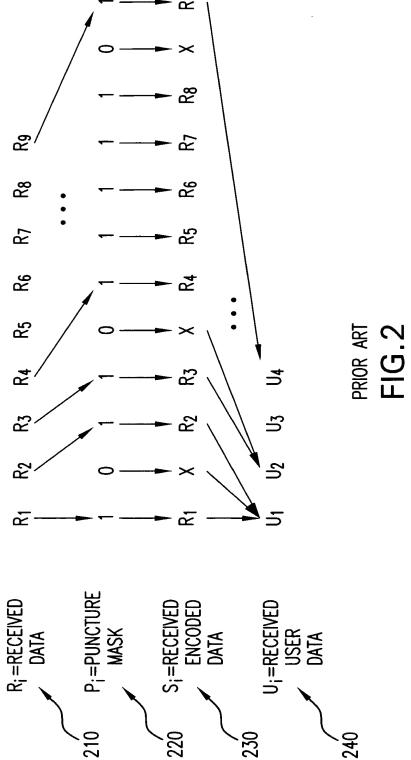


Replacement Sheet
Sheet 1 of 11
Appl. No. 09/640,963; Filed: Aug 16, 2000
Dkt No. 1875.9070000; Group Unit: 2631
Inventor: Aki SHOHARA
Tel. No.: 202-371-2600
For: Code Puncturing Method and Apparatus

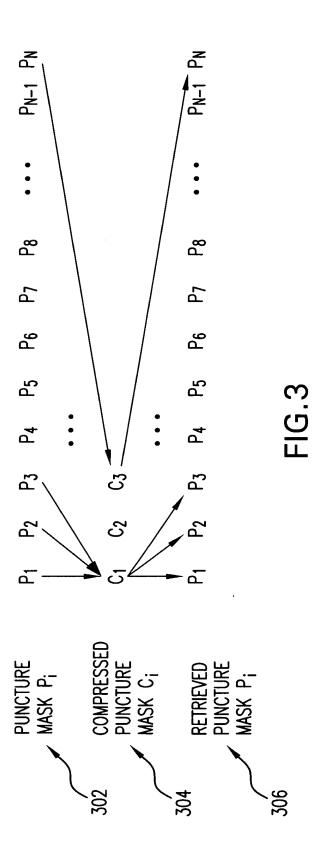


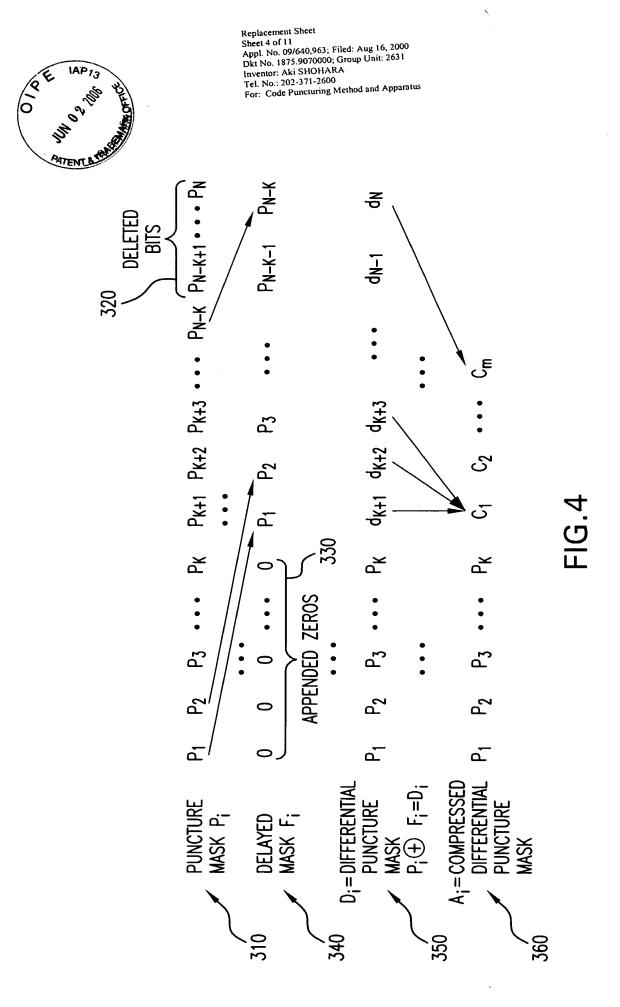






Replacement Sheet
Sheet 3 of 11
Appl. No. 09/640,963; Filed: Aug 16, 2000
Dkt No. 1875.9070000; Group Unit: 2631
Inventor: Aki SHOHARA
Tel. No.: 202-371-2600
For: Code Puncturing Method and Apparatus

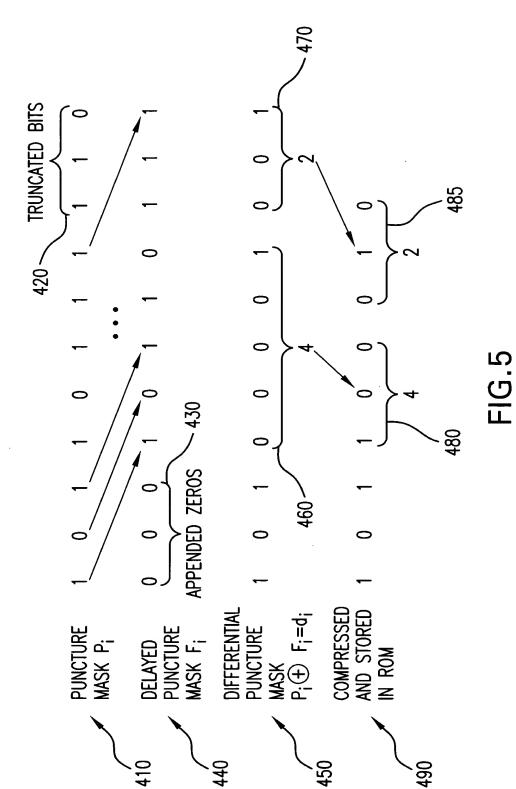


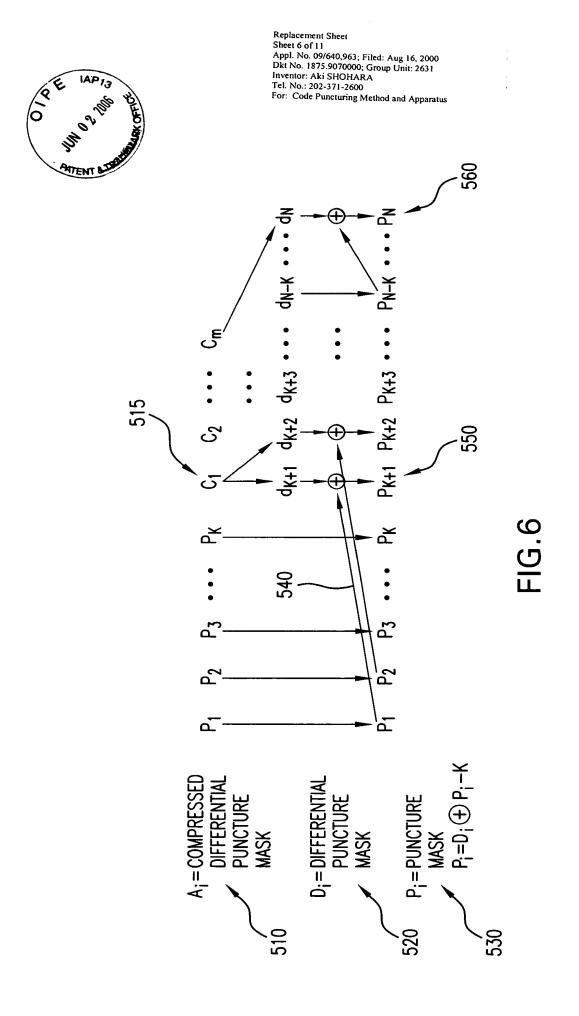


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Replacement Sheet Sheet 5 of 11 Appl. No. 09/640,963; Filed: Aug 16, 2000 Dkt No. 1875.9070000; Group Unit: 2631 Inventor: Aki SHOHARA Tel. No.: 202-371-2600

For: Code Puncturing Method and Apparatus



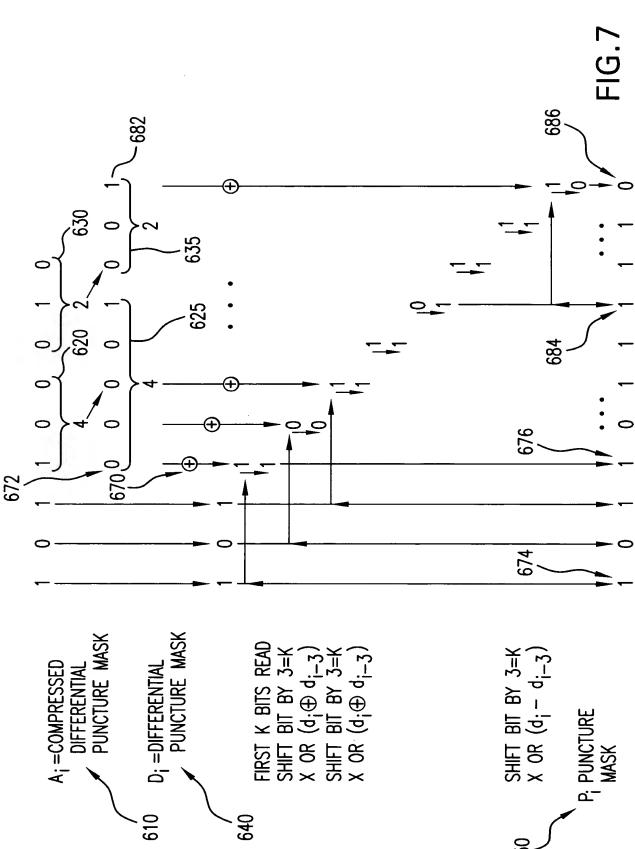




Replacement Sheet Sheet 7 of 11 Appl. No. 09/640,963; Filed: Aug 16, 2000 Dkt No. 1875.9070000; Group Unit: 2631 Inventor: Aki SHOHARA

Tel. No.: 202-371-2600

For: Code Puncturing Method and Apparatus





Replacement Sheet Sheet 8 of 11

Appl. No. 09/640,963; Filed: Aug 16, 2000 Dkt No. 1875.9070000; Group Unit: 2631

Inventor: Aki SHOHARA Tel. No.: 202-371-2600

For: Code Puncturing Method and Apparatus

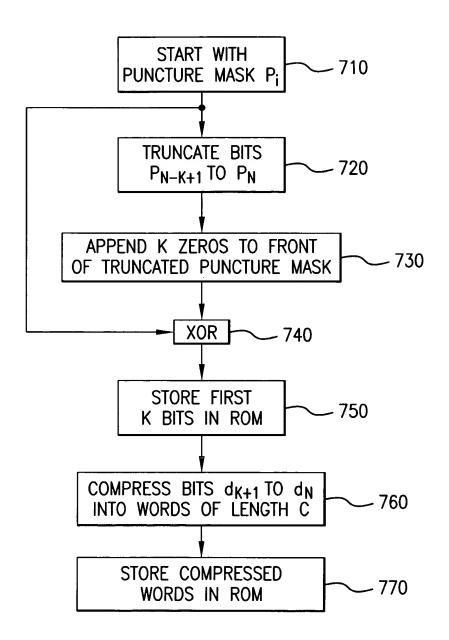
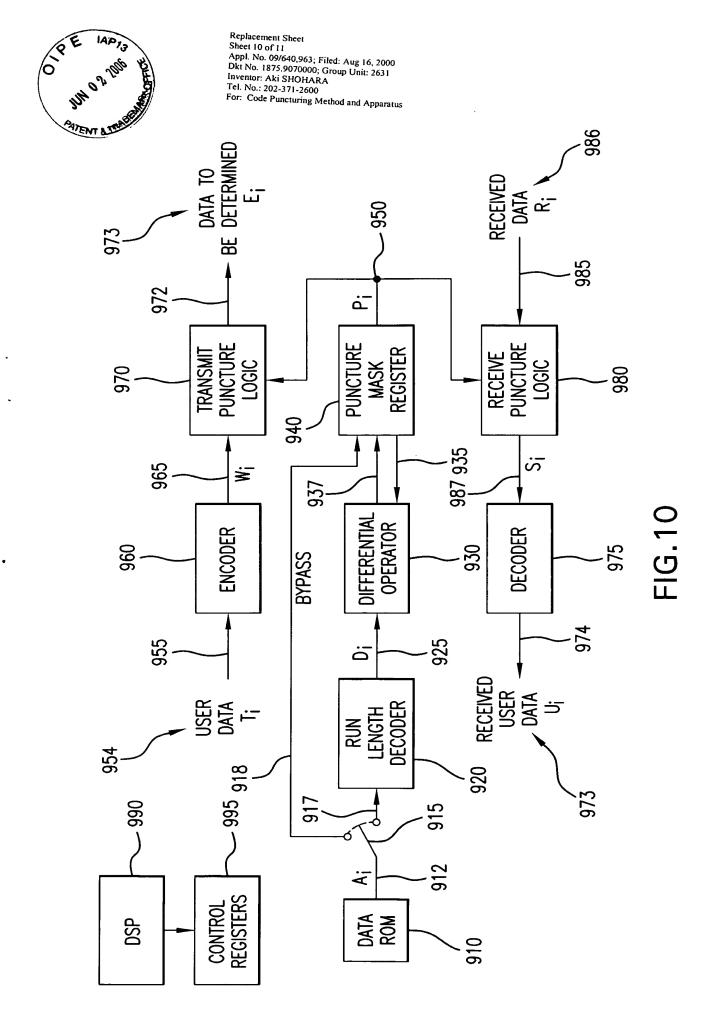


FIG.8

Replacement Sheet Sheet 9 of 11 Appl. No. 09/640,963; Filed: Aug 16, 2000 Dkt No. 1875.9070000; Group Unit: 2631 Inventor: Aki SHOHARA Tel. No.: 202-371-2600 For: Code Puncturing Method and Apparatus NOT CHECK POLARITY OF FLAG COMPRESSED COMPRESSED READ FIRST K READ ALL - 830 BITS FROM ROM N BITS FROM ROM STORE FIRST K BITS IN 840 PUNCTURE MASK REGISTER 820 READ COMPRESSED 850 WORDS FROM ROM DECOMPRESS WORDS FROM ROM TO COMPLETE - 855 DIFFERENTIAL MASK SET i=1- 860 865 RETRIEVE BIT K+i FROM DIFFERENTIAL 885 PUNCTURE MASK RETRIEVE BIT i FROM i=i+1870 PUNCTURE MASK REGISTER XOR AND STORE AT K+1 IN PUNCTURE MASK 875 880 NO i=N-K+1? YES **STOP** - 890

FIG.9



Replacement Sheet Sheet 11 of 11

Appl. No. 09/640,963; Filed: Aug 16, 2000 Dkt No. 1875.9070000; Group Unit: 2631 Inventor: Aki SHOHARA

Tel. No.: 202-371-2600

For: Code Puncturing Method and Apparatus

EGPRS, GPRS, and GSM Data Mode Puncture ROM Requirements

1010 1030 1040 1045 1050 1055 1060 1065

	\sim	Δ	Δ	$\overline{\mathcal{L}}$		Δ	$\overline{}$		-
Mode ID	Mask	Mask	Mask	Code	No. code	ROM req	ROM	Compress.	
	length	length	Period	Length	words	K+LM	Req:	ratio	
	N (bits)	(words)	K (bits)	L (bits)	М	(bits)	(words)		
TCH/F14.4	588	37	18	10	2	38	3	12.33	1
CS-2*	588	37	48	10	1	58	4	9.25	1
CS-2	588	37	4	6	25	154	10	3.70	1
CS-3	676	43	6	10	1	16	1	43.00]
MCS-1 P1*	588	37	63	9	3	90	6	6.17	1
MCS-1 P2*	588	37	63	9	3	90	6	6.17	1
MCS-1 P1	588	37	21	6	17	123	8	4.63	
MCS-1 P2	588	37	21	6	17	123	8	4.63	1
MCS-2 P1	732	46	6	7	13	97	7	6.57]
MCS-2 P2	732	46	6	7	13	97	7	6.57	
MCS-3 P1	948	60	18	8	7	94	6	10.00]
MCS-3 P2	948	60	18	9	7	81	6	10.00	
MCS-3 P3	948	60	18	9	9	99	7	8.57	
MCS-4 P1	1116	70	3	11	1	14	1	70.00	
MCS-4 P2	1116	70	3	11	1	14	1	70.00	
MCS-4 P3	1116	70	3	11	1	14	1	70.00	
MCS-5 P1	1404	88	9	9	12	117	8	11.00	
MCS-5 P2	1404	88	9	9	12	117	8	11.00]
MCS-6 P1*	1836	115	66	9	9	147	10	11.50	
MCS-6 P2*	1836	115	66	9	9	147	10	11.50	
MCS-6 P1	1836	115	3	7	49	346	22	5.23	l
MCS-6 P2	1836	115	3	7	49	346	22	5.23	
MCS-7 P1	1404	88	18	8	15	138	9	9.78	
MCS-7 P2	1404	88	18	8	15	138	9	9.78	
MCS-7 P3	1404	88	18	8	15	138	9	9.78	
MCS-8 P1	1692	106	36	10	3	66	5	21.20	1
MCS-8 P2	1692	106	36	11	3	69	5	21.20	
MCS-8 P3	1692	106	36	11	3	69	5	21.20	ĺ
MCS-9 P1	1836	115	3	11	1	14	1	115.00	l
MCS-9 P2	1836	115	3	11	1	14	1	115.00	l
MCS-9 P3	1836	115	3	11	1	14	1	115.00	1070
									リノ
Total*	31960	2006				1890	137	14.64	1080
Total	31960	2006				2550	161	12.46	 ~

^{*}Denotes the case where multiples of the basic puncture matrix are used as the basic period K.

TABLE 1.